New York Notebook, N-85-12-06

This notebook covers the period December 1885-July 1886. There is also one entry from September 1888. All of the entries are by Edison except for one entry by an unknown assistant. Included are notes and drawings relating to armature windings and non-sparking commutators, engines and boilers for central station plants, lamp experiments, electric power distribution systems, and the phonograph. On page 290 is a list by Edison of competing electric light companies. The book contains 292 numbered pages.

Blank pages not filmed: 16-17, 26-29, 58-59, 72-73, 76-77, 228-237.

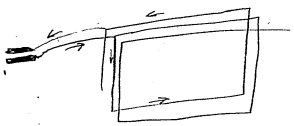
Missing page numbers: 1-2, 61-62, 79-102, 113-164, 203-212, 217-218, 239-252, 267-284.

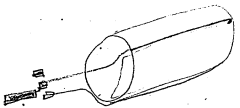
N-85-12-06

[illegible]
ARTHUR H. THOMAS CO.
MANUFACTURERS
55 CEDAR STREET
New York

Dec 6 1885 — N-85-12-06 3

Non-Sparking Commutator





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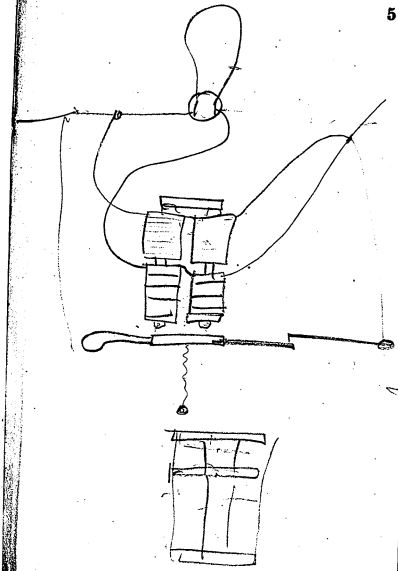
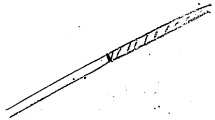
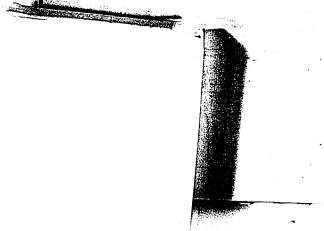
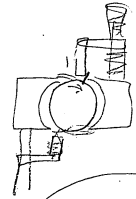
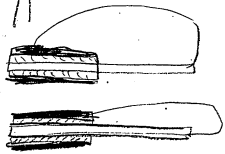
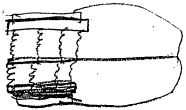




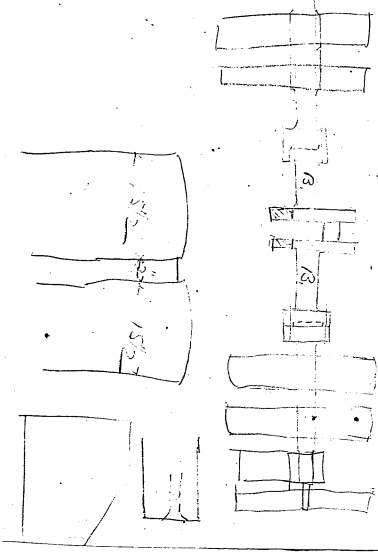




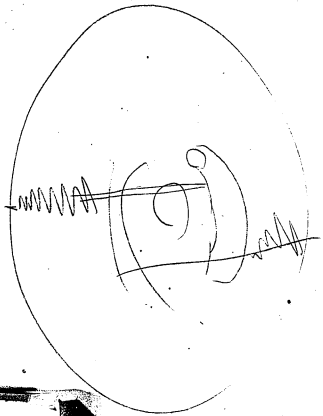




Jan 17 - 86



10 Jan. 17—56



Jan. 17—56 11

170 / 15,000 (10')

8' 4"

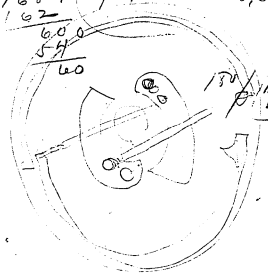
17' 24,000 / 168,00 = 8,33

162

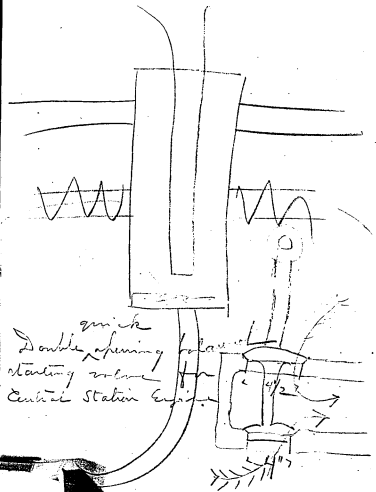
6,0

5,4

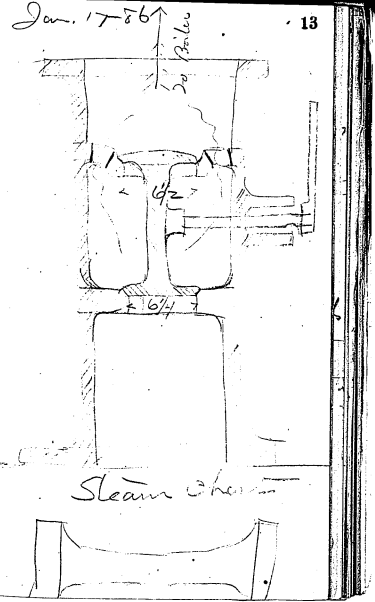
60

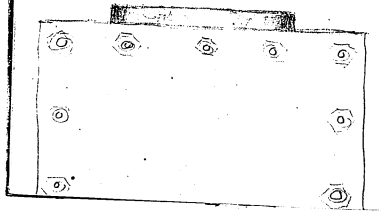


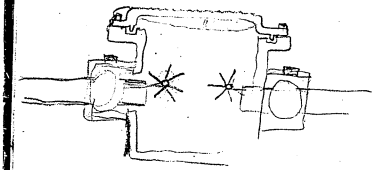
12 Jan. 17th. 1856

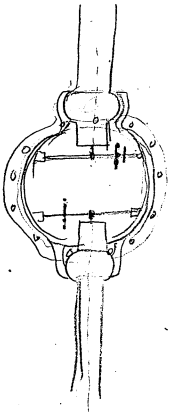


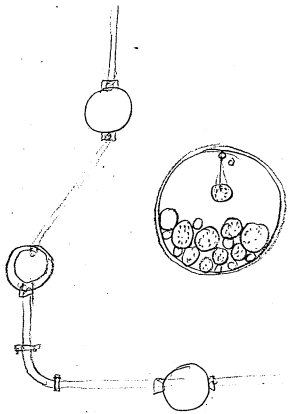
Jan. 17-56 13

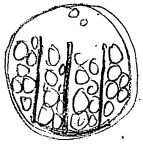


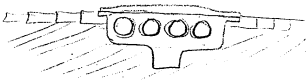


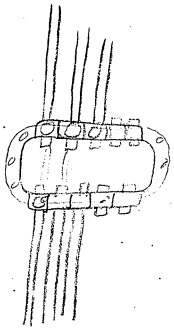




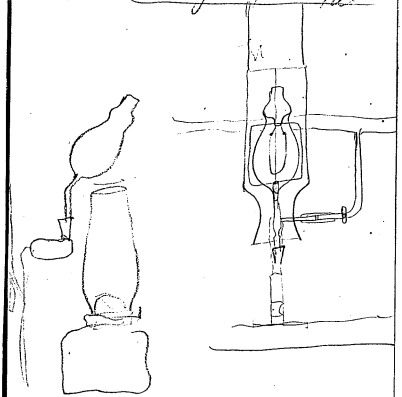




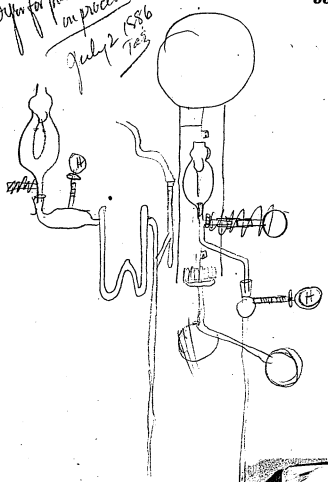




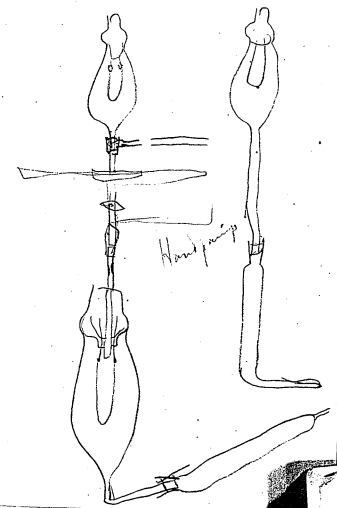
Lamp Experts July 2 1886

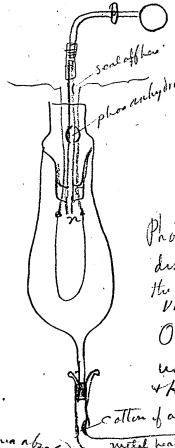


Diffusion pump
in process
July 2 1886
Tesla



July 2 1556



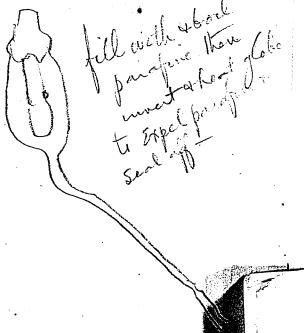

sealed off here
phosphorus pentoxide
Dyer's patent.
Phosphorus may be
dissolved in benzene
the glass tube is
vide gold then used
of pump
Oxygen can't be
used – ammonia
+ HCl.
cotton of ammonia + HCl used
ammonia absorbed
by charcoal
or in substance
heated gently
HCl.
X
gas passed through X
Cold ext c then
Sealed also at
The X heated at Chlorine absorbed

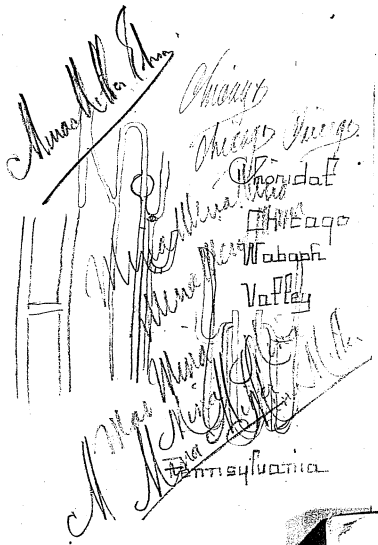
Dry pentachloride phosphorus
both to absorb H2O & act as drier
The C combines with Hg at laboratory
P which from PO_3 with O, etc.
H2O!

Dipt to Hokyo not working out. Three
bumps Hg at PO_3 jumped up into -

Thiosulphate soda
soda removes gases
Chlorine from substance of bubbler into.

glacial acetic acid
melted paraffine
for pump to replace Mercury
also melted Rose metal, or
fusible metal




Chicago
Wabash
Valley
Pennsylvania

NOW IS THE WINTER OF OUR DISCONTEN
MADE GLORIOUS SUMMER BY THIS
SON OF YORK & ALL THE CLOUDS
THAT LOWERED UPON OUR

Now is the winter of our discontent made
glorious summer by this son of york
and all the clouds that lowered
upon our house are in the deep bosom
of the ocean buried. grim visaged war
has s

nowre the mentes of our dreadfull
medeg Saviour premium by the
one of yorke & all the Cords
that Convicted eyther our hearte
or mythes deep Sorrow of
the reason by wch grace
wee god wan have mercifully
his mynistred first Put
now

Lamp Expts July 4 1886
Tas

Bichloride of platinum Combines with Hg - forming 4 crystals $HgCl_2$ + amalgam of $PtHg_4$.

Try anthracene + other HC compounds to absorb Hg -

pentachloride are I think prone to give off Chlorine - try these

Try phosphorus. nitrous oxide to absorb Hg -

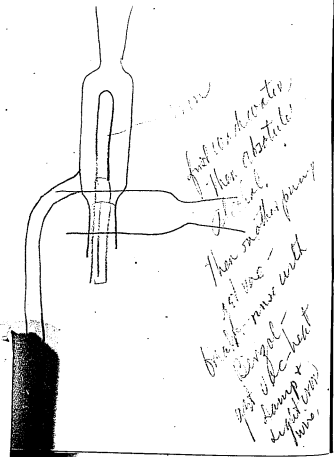
Try pentachloride antimony for Hg - one atom Cl very loose

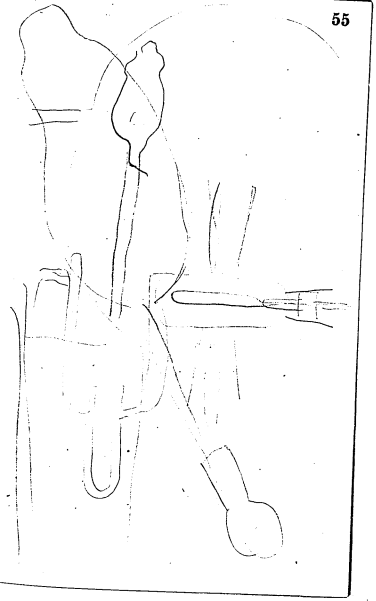
oxides Magnesium
mix [illegible] roll out cut filament
also oxide other infusible -
dry then soak in Licorice
or sugar or tar, dry then
Carbonize — High Res lamps

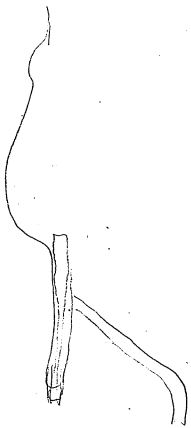
Coating Carborundum Boron
Chromium diboride CrB Boron
also Fluoride Boron.

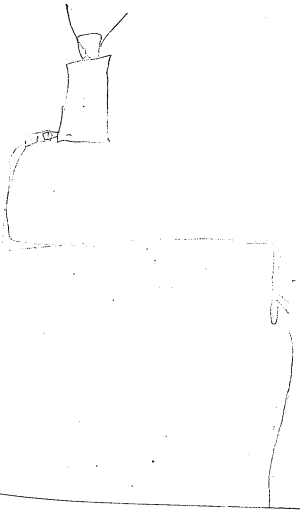
Mix Magnesium Licorice, tar sugar or
Bakelite, or Thorium with
paste of Mag oxide roll out &
Cut filaments. Carbonize

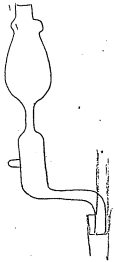
Try iron fulminate + Chloride
Carbon - also in presence
of H_2 also Cyanogen gas
from Cyanide Mercury or Silver
to make fulminate Dissolve
out iron

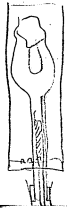

now
fast reactor
then absolute
alcohol
then another pump
reactor
drying with
Drierite
just like
Lamp
liquid (wax)
pure.

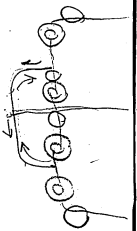


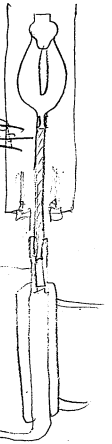












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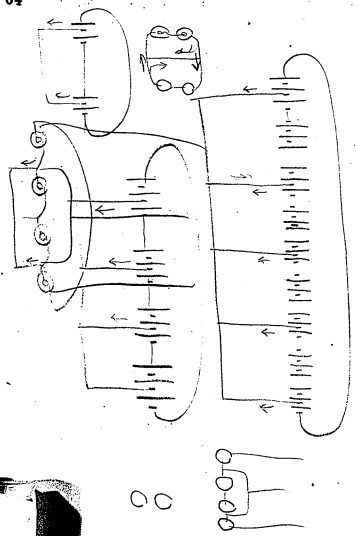
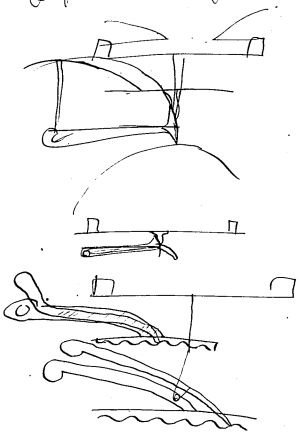


Sept 11 1888 phaud 65



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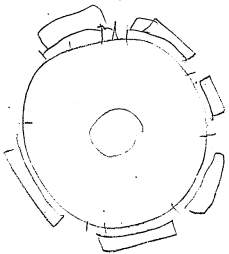
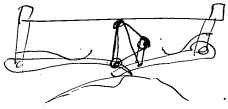
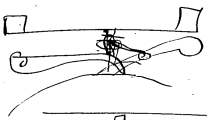
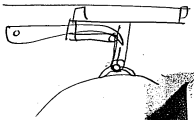
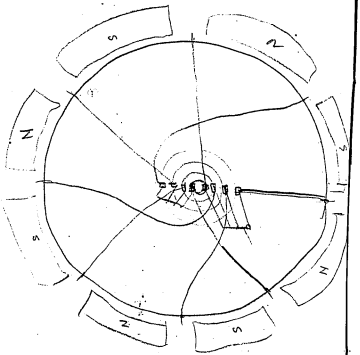


Sept 11 88
plexus





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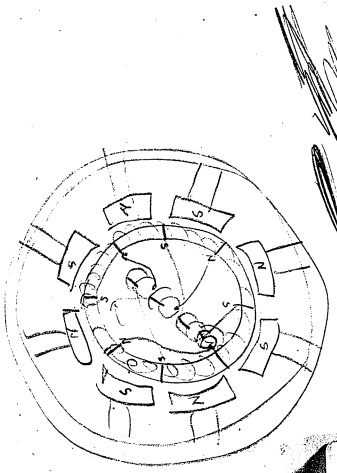
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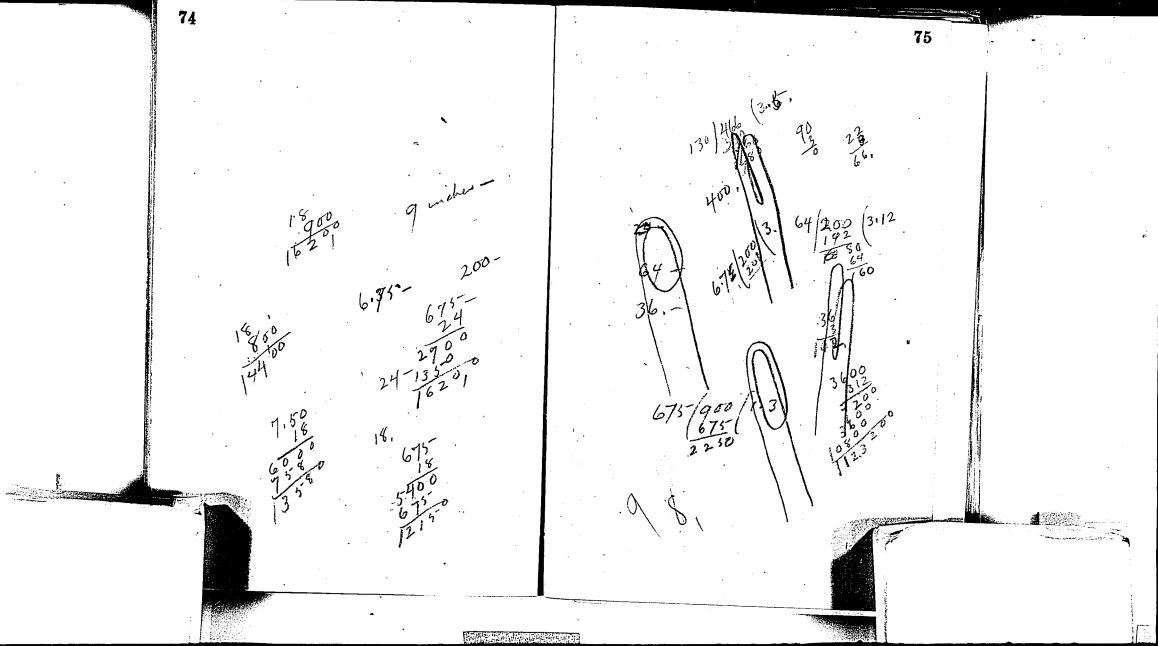

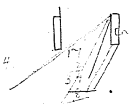

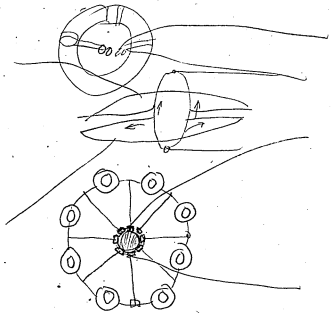

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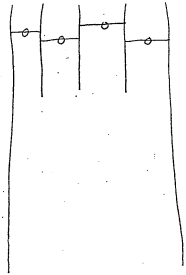
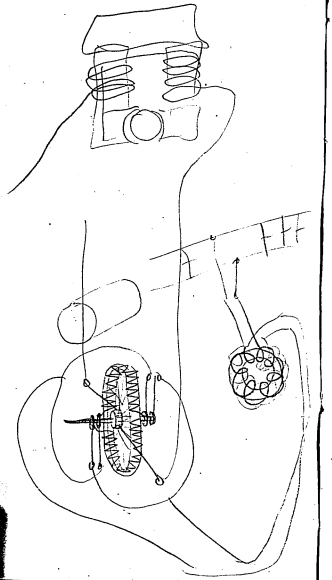
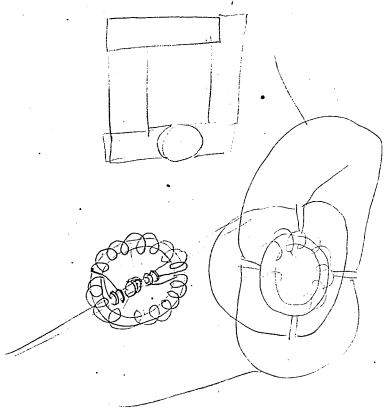
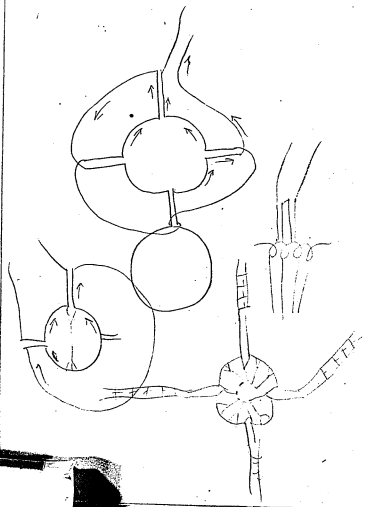
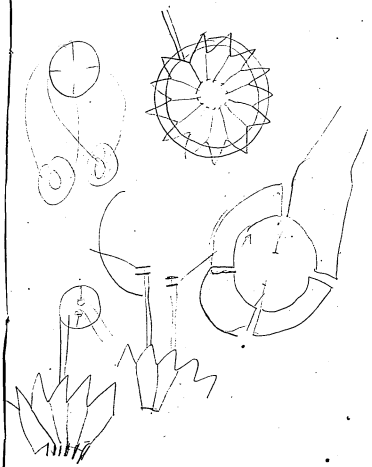
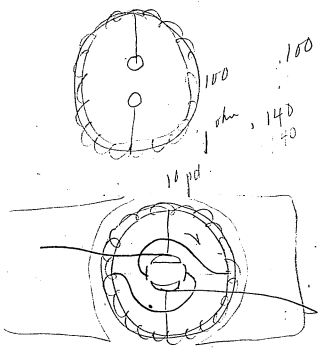


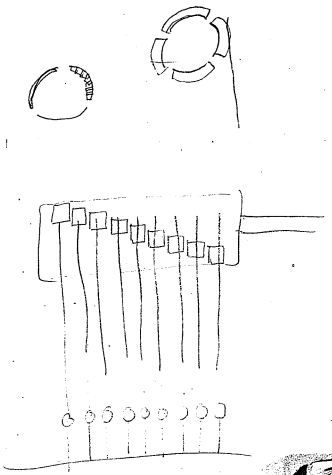









100
160
140
10 pd



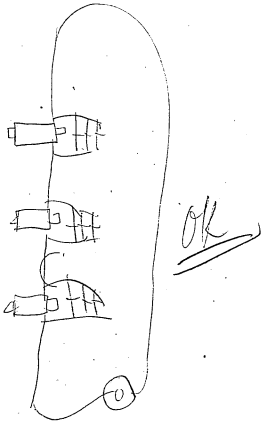
40 / 32000 (625
320
1000
800
200
2 5 1200 gm

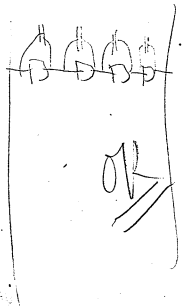
10 units
10 " 2 "
12 " 2 " 16. 20/

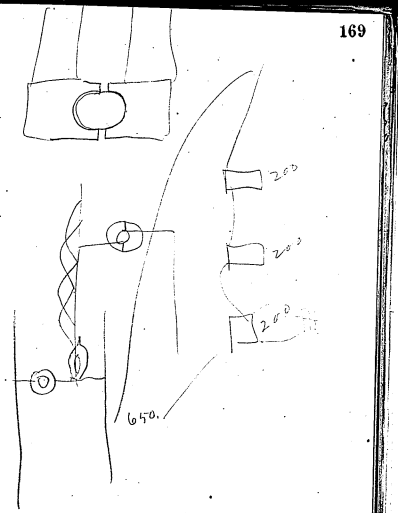
2 ohm 25- voltage.

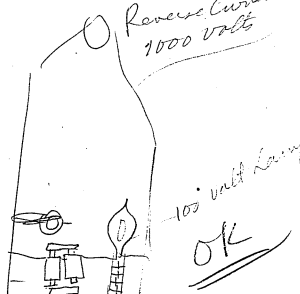
25- coils 3 8 cp
6 to 1

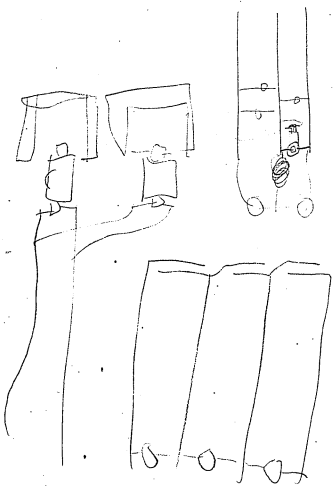
25- 12
25-
25-
25-

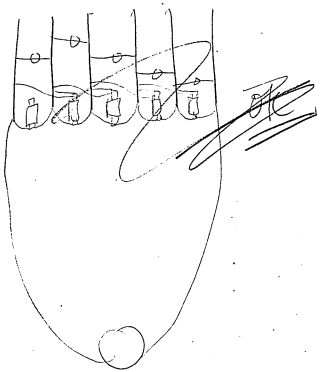

OK

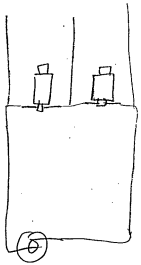


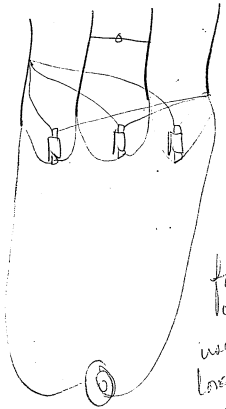

200
200
200
650.


Reverse Current
1000 Volts
100 Volt Lamp
OK
Amperemeter





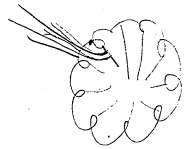




OK

for storeroom
low dynamo
use conveyor, with
long belt

3 or 5 feet
or longer as
can



5

3000.

15

3000.

150

30

0

7 ea.

10

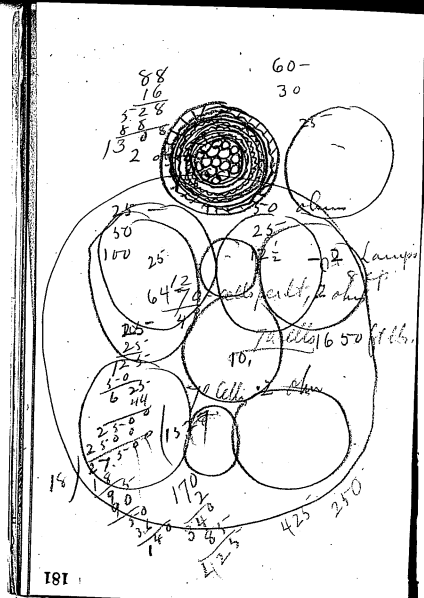
3

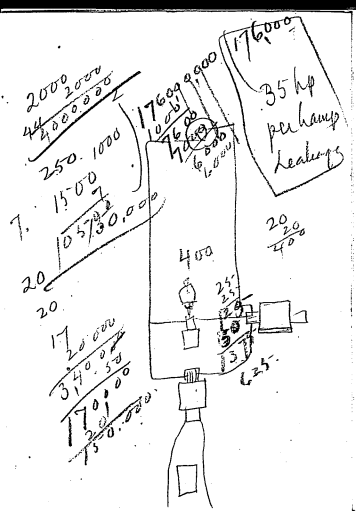
6.

1600

320

3.14 − 320


88
16
60-
30
64½
425
250


2000
250. 1000
15-00
400
17
2000
1701
35 hp
per lamp
Leakage

350000

100000
20,0000
2,0000
222000

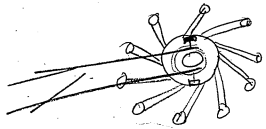
1/4
180

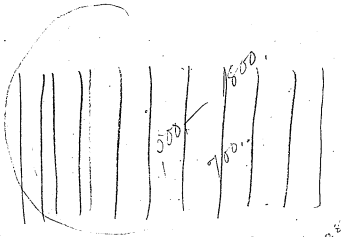
100000.
50000
20,0000
4,0000
5000
1000
192000

192000

500
20
1000

750
20
30





100

60 | 3000
300

N

S

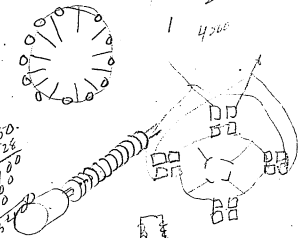
450

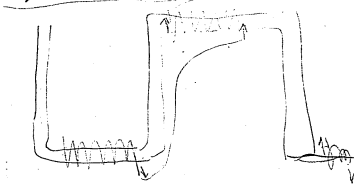
150.

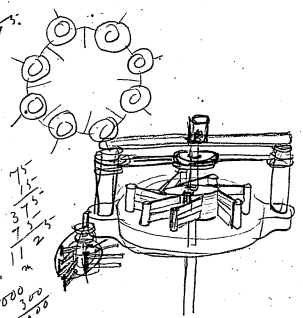
75 | 200
300

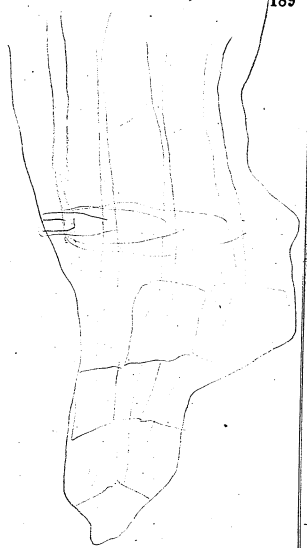
6.

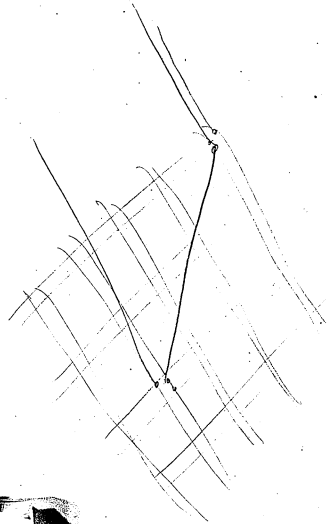
6. | 36.
8 4 9 1 4
2000
1 4 2 8

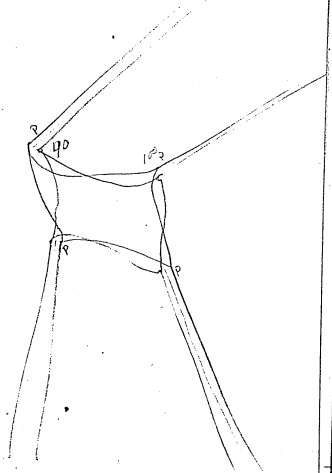


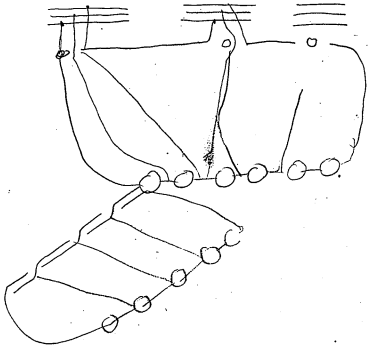


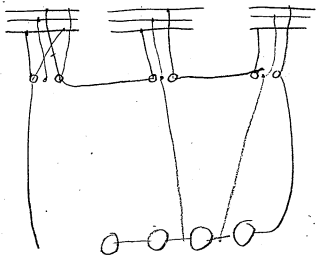


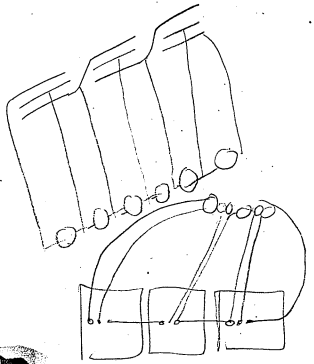


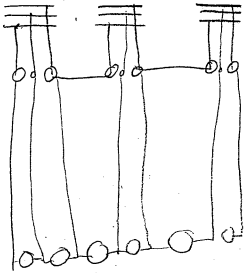


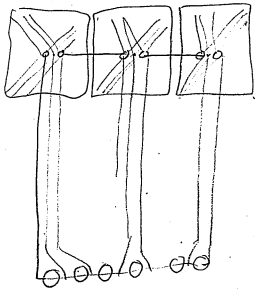

P
120
120
P
P



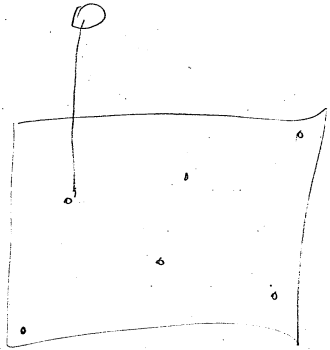


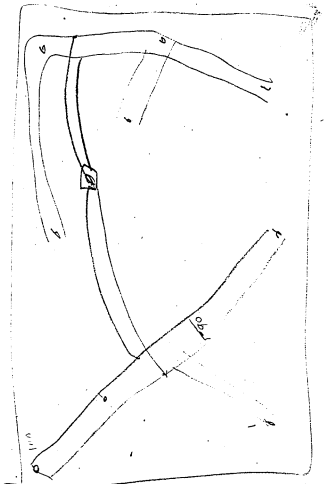


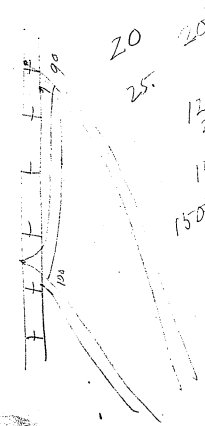




100 000. . . 2 miles 1600.
25 000
6,500







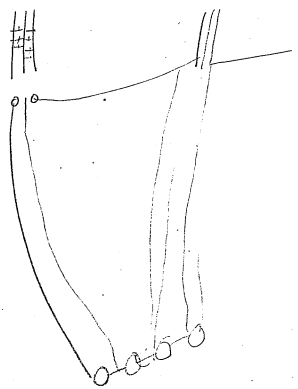
20 200.

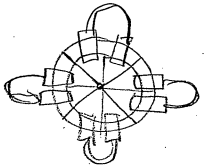
25.

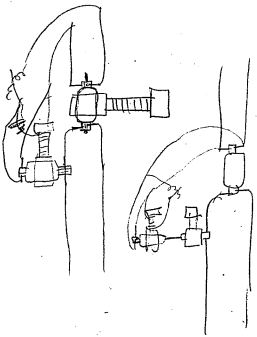
1250
2

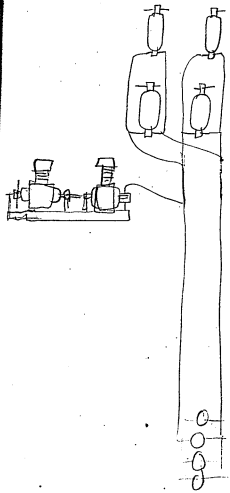
1450
1

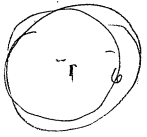
1500.











460 -
230
690.

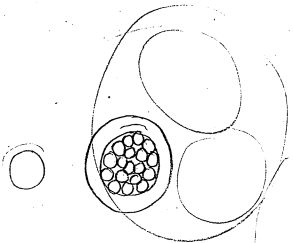
.6 inch.

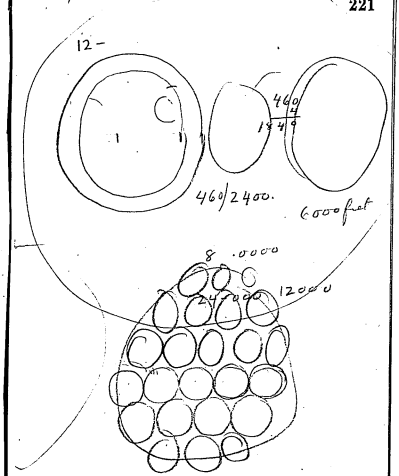
2.4

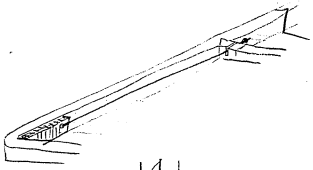
2.49

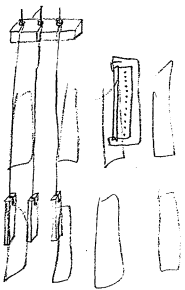
1,56
3000
46 8 000
2
936 0
17
655-20
936 0
2
1691

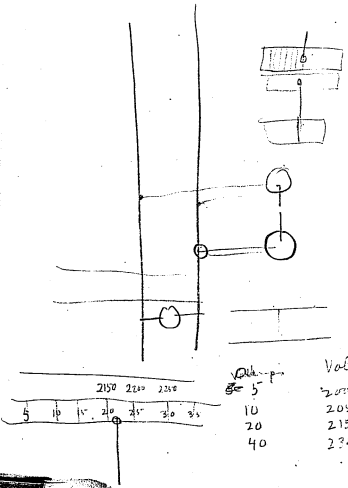
639.
6
3834
17
507 26838
6 38346
3042 654.17
17
21294 2400
3042 17
3.171 16800
24000
4041



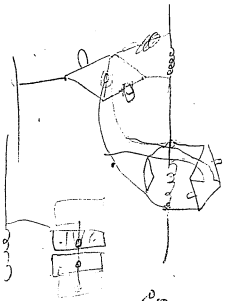

12-
460
184
460/2400.
6000 feet
8 .0000
24 .0000
120000
13 108,
120- .43
64- 72-
98.

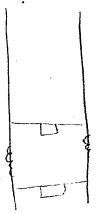






Volt.	Volt.
5	2050
10	2050
20	2150
40	2300





400

15 / 20000 (1333
15
50
45
50
45
5

3000 –

200 / 400000 (2200
400
400
400

100
4 1 0 0
400
400
400
400

33000 (15
3300
1800
1500

12000 feet,
5 miles
10 –
20

19,000
76000
304.000

4 / 1216,000
3015-00

5000 500
5 2500

300,000, 16-pct
1300 lbs, 20 miles
2600
5200

~~650.000~~
1162.000,

32 pct lbs 162.000.
20 pct
160.000
wine.
patés,
indigenous
Bananas
Rebuses
Asylum Waffs

400 lbs, 20 miles

378,000.

16 / 1350,000 (843
128
64
60
48
120
112
8

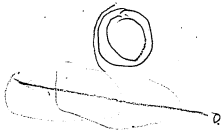
1000 1300 lbs 10 miles — 1,350,
2000 – 325
400 —

45000 / 900,000.
4500000

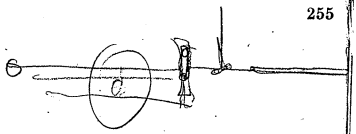
5000
30
30
5
70
30
50

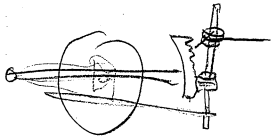
27
5000
135

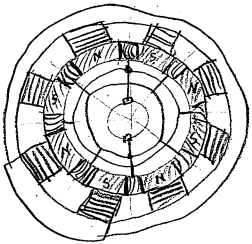
16 / 1350,000 (843
128
64
60
48
120
112
8



25-






N
S
N
S
N
S
N
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N
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N
S
N
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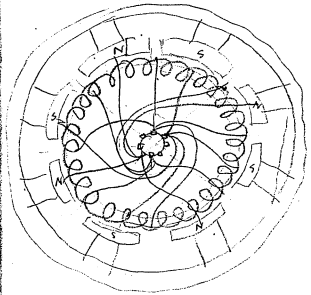
N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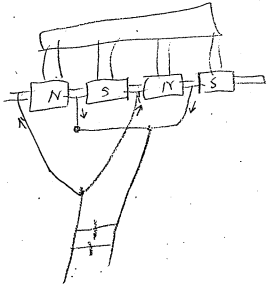
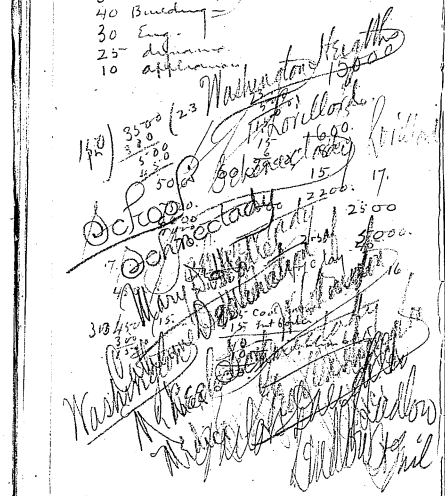
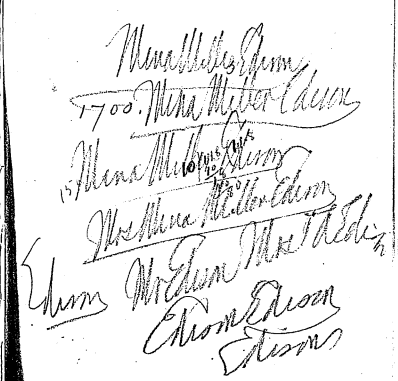

N
S
N
S

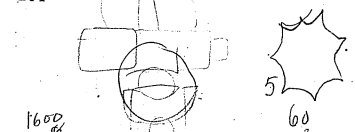
1000 hp ÷

30. - boiler
40 Building
30 Eng.
25 dynamo
10 appliances

50c	day hour per hp —	10 pct.	5
		10	10
50	Engine.		11.8
16.8	Dynamo.		11.87
.7	Cabinets.		
30	Building Ship's Canal		15.00
30.	manufactures.		18.







1600
12.800

60
3
180

6.75 15.
90

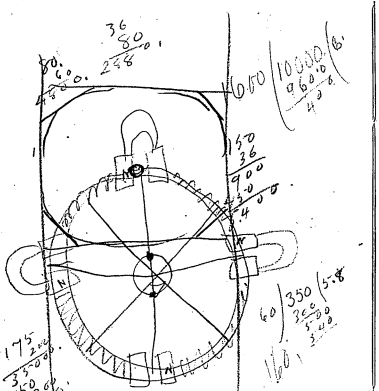
Louisville Ky

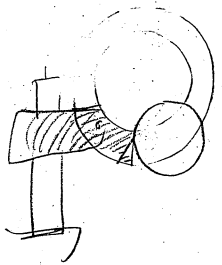
30

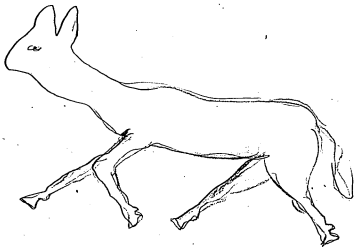
2.5
2.000
5.000

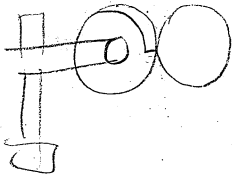
200,

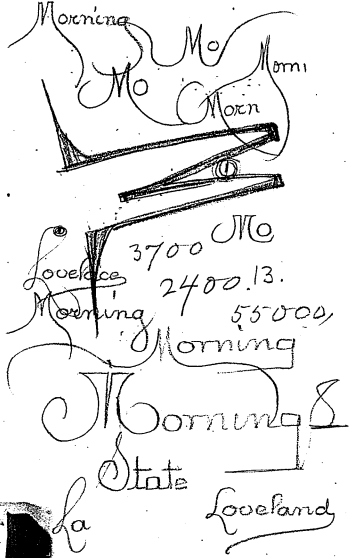
Dayton
Cincinnati
Columbus
Springfield
Zanesville
Cleveland
Akron
Toledo
Youngstown
Canton
Portsmouth
Marion
Lima
Mansfield
Newark
Chillicothe
Steubenville
Ironton
Sandusky
Findlay
Bucyrus
Norwalk
Piqua
Urbana
Troy
Sidney
Wooster
Piqua
Urbana
Wapakoneta
Bellefontaine
Defiance
Van Wert
Celina
Greenville
Tiffin
Fostoria
Fremont
Sandusky
Huron
Norwalk
Ashland
Wooster
Orrville
Massillon
Canton
Alliance
Salem
Youngstown
Warren
Niles
Sharon
Ashtabula
Conneaut
Geneva
Painesville
Mentor
Lorain
Elyria
Medina
Wadsworth
Akron
Barberton
Ravenna
Kent
Hudson
Cuyahoga Falls
Stow
Cleveland
Euclid
Lakewood
Rocky River
Parma
Berea
Bedford
Shaker Heights
Cleveland Heights
Lakewood
Euclid










Morning
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Morning
State
La
Loveland

150,000

Edison Co Chicago
Remington Typewriter — Telephone
Matteson Electric Light Co —
Sun Light —
British Dynamo Co —
U.S. Co —
Bernstein Co
Thompson + Houston Co
Schuyler Electric Light Co
Sawyer Man Co.
Van De Poele Co Chicago

37
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185
45

45
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540
45
500

37000
52
74000
7400
1850
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